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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/840,177

05/06/2004

Hyun-Jeong Kang

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EXAMINER

CHURNET, DARGAYE H

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/840,177	<b>Applicant(s)</b> KANG ET AL.	
	<b>Examiner</b> DARGAYE H. CHURNET	<b>Art Unit</b> 2619	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-21 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/15/04</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**Detailed Action**

***Claim Rejections - 35 USC § 103***

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanforth et al. in view of Belcea (cited 6,807,165).

For claim 1, Stanforth et al. disclose a mobile host for determining a route in a mobile ad-hoc network (see fig. 3, mobile ad-hoc network), comprising: a power information calculator (see col. 7, lines 51-54, power level is calculated within the mobile terminal) for calculating power information (see col. 9, lines 29-31, wherein the power level is the power information) using link transmission power (see col. 9, lines 26-29,

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wherein link quality, including link transmission power, is calculated), which will enable the mobile host to transmit data, and remaining battery power (see col. 9, lines 26-29, battery life is calculated); a message generator for generating a message (see col. 8, lines 61-63, wherein the terminals exchange messages on a regular basis) for determining a host for a requested service (see col. 9, lines 26-28, wherein the optimal route, which includes the hosts to be used, is determined based on the service) and generating an SQPE (Service Query Power Extension) message (see col. 8, lines 61-63, wherein the routing table information is the SQPE message) including the power information calculated by the power information calculator (see col. 8, lines 45-60, wherein the power information is included in the routing table information); and a radio module for converting the generated SQPE message into a radio signal (see col. 6, lines 4-10, wherein the network consists of a series of radios which inherently convert messages to radio signals). Stanforth et al. fail to disclose broadcasting the radio signal to the mobile ad-hoc network. Belcea from the same or similar fields of endeavor teach broadcasting the radio signal to the mobile ad-hoc network (see col. 8, lines 57-61, wherein the information about the terminals is broadcasted to the mobile ad-hoc network). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to incorporate the elements above stated by Belcea in the network of Stanforth et al. The method taught by Belcea is modified/implemented into the network Stanforth et al. by broadcasting the routing table information to all of the terminals in the network. The motivation for broadcasting the radio signal to the mobile ad-hoc network is that Stanforth et al. teaches the transmission of the routing table

information between each of the terminals, which could be done faster by broadcasting the routing table information, and references the application of Belcea as a similar ad-hoc network.

For claim 2, Stanforth et al. disclose a controller for controlling the power information calculator, the message generator, and the radio module (see fig. 3, mobile terminal 10, which inherently consists of a controller to control the power calculation and generation and transmission of radio messages).

### ***Allowable Subject Matter***

3. Claims 3-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 7-21 are allowed.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references include Acampora (cited 6,751,455) and Agrawal et al. (cited 6,072,784), which both describe mobile networks determining routes on node power levels.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dargaye H. Churnet whose telephone number is 571-270-1417. The examiner can normally be reached on Monday-Friday from 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dargaye Churnet  
Patent Examiner  
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/CHAU T. NGUYEN/

Supervisory Patent Examiner, Art Unit 2619